

The Examiner has rejected claims 8, 12, and 15. Applicants request reconsideration of these rejections based upon the following comments.

Claim Rejections – 35 U.S.C. § 102

Claims 8 and 15 are rejected as being anticipated by Doshi (US 6277720). Applicants have carefully considered the rejections, but respectfully traverse because the cited patent fails to inherently or explicitly teach each and every feature of the rejected claims.

Process claim 8 details a step of depositing a <u>silicon</u> layer on a tungsten silicide layer. Likewise, article claim 15 details a <u>silicon</u> layer formed on a tungsten silicide layer. Doshi, on the other hand, discloses a <u>silicon nitride</u> layer overlying a tungsten silicide layer. See column 7, lines 40-45.

According to Applicants, the silicon nitride layer of Doshi serves as a barrier to the diffusion of boron and phosphorous from the BPSG layer (14) during high temperature processes such as reflow and densification. In contrast, the silicon layer of Applicants' invention depresses the generation of voids in the polysilicon layer and enables adequate side wall formation. The silicon nitride layer of Doshi and the Applicants' silicon layer act very differently in view of the object to be accomplished.

Doshi fails to disclose the claimed silicon layer. As such, the rejection of claims 8 and 15 should be withdrawn. Applicants also submit that dependant claims 9-11 are in allowable format if the aforementioned rejections are withdrawn.

Claim Rejections - 35 U.S.C. § 103

Claim 12 is rejected as obvious in view of Doshi and Divakaruni (US 6,346,734).

Applicants respectfully traverse this rejection and request that it be withdrawn because the cited patents fail to teach all the claimed features.

Method claim 12 details a "short-time" annealing step carried out between the depositing and oxidizing steps. This "short-time" annealing step is described on page 13, lines 17-19 of the instant application. According to the application, the "short-time" annealing step is an annealing process carried out for a short time of 30 seconds at 1000°C in an atmosphere of 100% nitrogen.

Applicants assert that the cited patents fail to disclose the aforementioned "short-time" annealing step. The cited patents only disclose conventional annealing processes for preventing oxidation, which typically take about 30 minutes.

Applicants also submit that the annealing steps would not be considered analogous by one skilled in the art. The result of the "short-time" annealing step is described on page 13, lines 23-33 as preventing "silicon atoms from diffusing from the polysilicon layer." This result is different from the annealing steps discussed in the cited prior art. As noted by the Examiner, Doshi fails to disclose a "short-time" annealing step carried out between said depositing and oxidizing steps. Divakaruni discloses that an annealing step is needed "after the mask open etch step to prevent anomalous WSI_x oxidation..." as described at column 4, lines 50-52.

Therefore, Applicants submit that the cited patents fail to suggest or teach to one skilled in the art, at the time the invention, the subject matter of claim 12. Applicants respectfully submit that a *prima facie* case of obviousness has not been established and

U.S. Patent App. No. 09/819,685

that the rejection should be withdrawn. Applicants also submit that claims 13 and 14 are

in allowable format if the aforementioned rejection is withdrawn.

New Claims

Applicants request consideration of new claims 16-21, which recite details of the

invention. It is respectfully submitted that these claims are allowable over the prior art of

record.

CONCLUSION

Applicants respectfully submit that this response obviates all of the outstanding

rejections. Applicants respectfully assert that the application should be allowed.

If any additional fees are due in connection with the filing of this response, such

as fees under 37 C.F.R. §§ 1.16 or 1.17, please charge the fees to Deposit Account

No. 02-4300. Any overpayment can be credited to Deposit Account No. 02-4300.

Respectfully submitted,

Date: August 14, 2002

Signature:

Michael A. Makuch, Reg. No. 32,263

Smith, Gambrell & Russell, L.L.P.

1850 M Street, N.W., Suite 800

Washington, D.C. 20036

Telephone: (202) 659-2811

SGRDC/186257.1

4